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(54) Title: REPLY SYSTEM

The basic concept

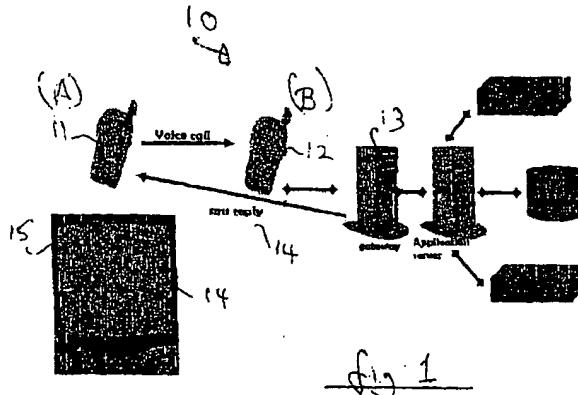


fig. 1

WO 2004/049684 A1

(57) Abstract: A system for automated reply to a calling party who has initiated an incoming call from said calling party to a called party; said system comprising in the event said called party is indicated by said system as unavailable to answer said incoming voice call, said system instigating delivery of a pre-set visually communicable message to said calling party.

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WO 2004/049684

PCT/AU2003/001562

REPLY SYSTEM

The present invention relates to a reply system and, more particularly, to a system adapted, although not exclusively so, for automated call back in response to 5 incoming voice telephone calls.

BACKGROUND

Simple answering machine-type devices are known for the purpose of providing a means for letting an incoming 10 caller know that the called party is not available to take the call. Typically such machines also include the ability to allow the calling party to save a recorded message for subsequent play back by the called party when the called party becomes available to listen to phone messages.

15 Answering machines, by their nature, are not portable devices in the same way that, for example, a mobile telephone is now considered a portable device or as a personal digital assistant (PDA) is now considered a portable device.

20 In today's highly mobile world answering machine-type devices are simply not capable of sufficient portability or flexibility to meet the needs of today's highly mobile communication consumers.

It is an object of the present invention to address or 25 ameliorate one or more of the above mentioned disadvantages.

BRIEF DESCRIPTION OF INVENTION

Accordingly, in one broad form of the invention there is provided a system for automated reply to a calling party who has initiated an incoming call from said calling party to a called party; said system comprising in the event said called party is indicated by said system as unavailable to answer said incoming voice call, said system instigating delivery of a pre-set visually communicable message to said calling party.

10 Preferably said visually communicable message is enabled as a graphically communicable message.

Preferably said visually communicable message is in the form of a transmission of digital data.

Preferably said incoming call is a voice call.

15 Preferably said incoming call is a text message or other visual message.

Preferably said graphically communicable message is an SMS message.

20 Preferably said graphically communicable message is a message containing both text and graphical symbols.

Preferably said graphically communicable message additionally includes voice or other audio information.

Preferably said graphically communicable message includes video content.

Preferably said called party is adapted to receive said incoming call on a hand-held device.

5 In a further broad form of the invention there is provided a system for automated reply as defined above.

Preferably said called party is adapted to receive said incoming call on a fixed landline hand piece.

Preferably said pre-set graphically communicable 10 message is determined by said called party.

Preferably said pre-set graphically communicable message is determined by a third party.

Preferably said pre-set graphically communicable message is determined, in part, by a third party and in 15 part by said called party.

Preferably said third party monetises said system by provision of content in said graphically communicable message which promotes said third party.

Preferably said pre-set graphically communicable 20 message is pertinent to the activity of said called party which prevented said called party from answering said

incoming call thereby to be informative to said calling party.

BRIEF DESCRIPTION OF DRAWINGS

5 Embodiments of the present invention will now be described with reference to the accompanying drawings whercin:

Fig. 1 is a block diagram of a first embodiment of a call back system in accordance with the present invention;

10 Fig. 2 is a block diagram of call sequencing for both a mobile to mobile scenario and a fixed telephone line scenario suitable for use in conjunction with the system of Fig. 1;

Fig. 3 is a block diagram of a second preferred embodiment of the present invention;

Fig. 4 is a block diagram of a third preferred embodiment of the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

20 With reference to Fig. 1 there is illustrated in block diagram form a call back system 10 in accordance with a first preferred embodiment. In this instance the system allows a calling party A to utilise, for example, mobile telephone 11 to make a voice call to a called party B associated with second mobile phone 12. In the event that 25 second telephone 12 is switched off or otherwise designated

as unavailable to receive calls then gateway 13 transmits a graphically communicable message 14, in this instance in the form of an SMS text message, to the first mobile phone 11 of the calling party A for display on screen 15 of the 5 mobile telephone of calling party A thereby to inform calling party A of the situation, in effect, as to why the called party B is unavailable to receive calls.

Fig. 2 illustrates the situation in the upper block diagram for mobile to mobile communication, which is to say 10 where the calling party A of block 20 calls called party B of block 21.

In the case of a mobile to mobile telephone call when calling party 20 utilises a mobile phone (not shown) to call called party B party A is notified by a pre-recorded 15 announcement with words to the effect "This message is being diverted to the SMS call-back service" following which an SMS message 22 is dispatched to the mobile telephone display of calling party A, in this instance, communicating a message pertinent to the activity of the 20 called party B which prevented the called party B from answering the incoming call in the first place thereby to be informative to the calling party A.

In the case of the fixed line scenario the calling party, party A telephones the called party B via a fixed 25 telephone line. In the case where the handset (not shown) called by party A is set to "SMS call-back" then a

diversion to a message bank or equivalent electronic voice advisory line can be instigated which can advise words to the effect that an SMS call-back service will be put into effect. Subsequently an SMS message is sent to the handset 5 of party A advising of pre-set data ideally determined, at least in part, by party B and dispatched in the event that party B is unavailable to take the incoming call from party A.

With reference to Fig. 3 the original system of the 10 first embodiment of Fig. 1 is described where like components are numbered as for the system of Fig. 1.

In this instance additional data processing capability is placed in communication with gateway 13 and application server 22 in the form of web interface management unit 23, 15 reporting module 24 and database 25.

In turn database 25 communicates with a content manager 26 which can receive media from multiple sources including media feeds 1, 2, 3 as shown in Fig. 3.

The database 25 can interface with databases of, for 20 example, a telecommunications company 27, a database of a financial institution 28 and/or a database of an affinity program 29.

The arrangement is to add value to the visually 25 communicable message 114. This will be done in the situation where the message 114 initially includes text or equivalent data determined by the called party B and to

which is added third party data such as, for example, advertising indicia 115 for which the third party is prepared to pay to the provider (not shown) operating gateway 13 and application server 22 thereby, in this particular instance, absorb the costs to the carrier of communicating the visually communicable message via SMS or equivalent to a handset operated by calling party A.

With reference to Fig. 4 the system 10 of Fig. 3 can be utilised as part of a unified messaging platform 100 which can support the situation where calling party A seeks to establish a voice call with called party B and following the failure of the voice call, causing to be transmitted a visually communicable message via server 110 to the display 115 of the handset of calling party A.

The system operates by the handset of called party B communicating its off status to master server 111 which ultimately communicates with server 110 for the purposes of sending an acknowledgement message to be displayed on the display 115 of the handset operated by calling party A.

The unified messaging platform 100 is further adapted to utilise databases of third parties thereby to "monetise" the dispatch of the visually communicable message to the calling party.

Third parties of interest may include a telecommunications provider 116, a financial institution

117 and/or a rewards point or other affinity program provider 118.

Such databases can work in conjunction with the basic system originally described with reference to Fig. 1 whereby, as a minimum, third parties can seek to accept the costs of generating and transmitting the visually communicable message to the handset of called party A.

In particular forms the third party 116, 117, 118 will provide at least some of the content ultimately to appear 10 on screen 115 with the balance of the content deriving from a pre-set message determined by choice of the receiving party B.

The above describes only some embodiments of the present invention and modifications, obvious to those 15 skilled in the art, can be made thereto without departing from the scope and spirit of the present invention.

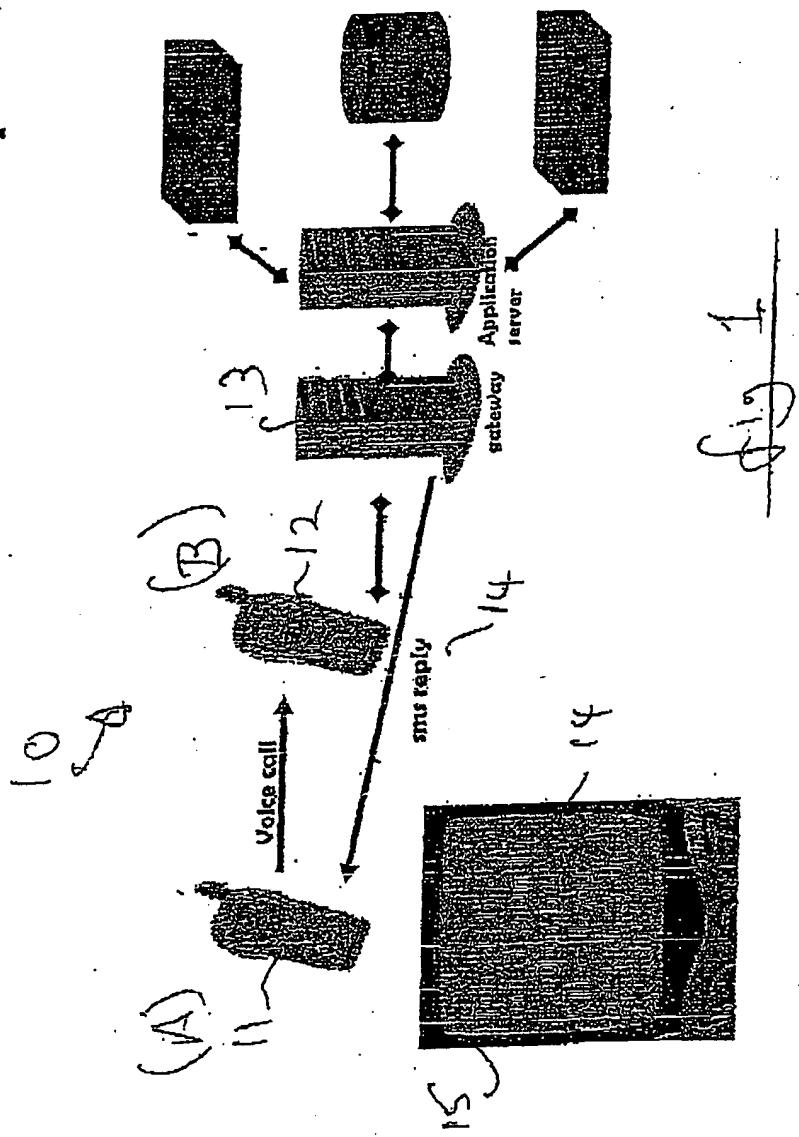
CLAIMS

1. A system for automated reply to a calling party who has initiated an incoming call from said calling party to a called party; said system comprising in the event said called party is indicated by said system as unavailable to answer said incoming voice call, said system instigating delivery of a pre-set visually communicable message to said calling party.
2. The system of Claim 1 wherein said visually communicable message is enabled as a graphically communicable message.
3. The system of Claim 1 or Claim 2 wherein said visually communicable message is in the form of a transmission of digital data.
4. The system of Claim 1, Claim 2 or Claim 3 wherein said incoming call is a voice call.
5. The system of any one of Claims 1 to 3 wherein said incoming call is a text message or other visual message.
6. The system of Claim 1 wherein said graphically communicable message is an SMS message.

7. The system of Claim 2 wherein said graphically communicable message is a message containing both text and graphical symbols.
8. The system of Claim 2 wherein said graphically communicable message additionally includes voice or other audio information.
5
9. The system of Claim 2 wherein said graphically communicable message includes video content.
10. The system of Claim 1 wherein said called party is adapted to receive said incoming call on a hand-held device.
10
11. A system for automated reply as claimed in any one of Claims 1 to 10.
12. The system of Claim 11 wherein said called party is adapted to receive said incoming call on a fixed landline hand piece.
15
13. The system of Claim 1 wherein said pre-set graphically communicable message is determined by said called party.
- 20 14. The system of Claim 1 wherein said pre-set graphically communicable message is determined by a third party.

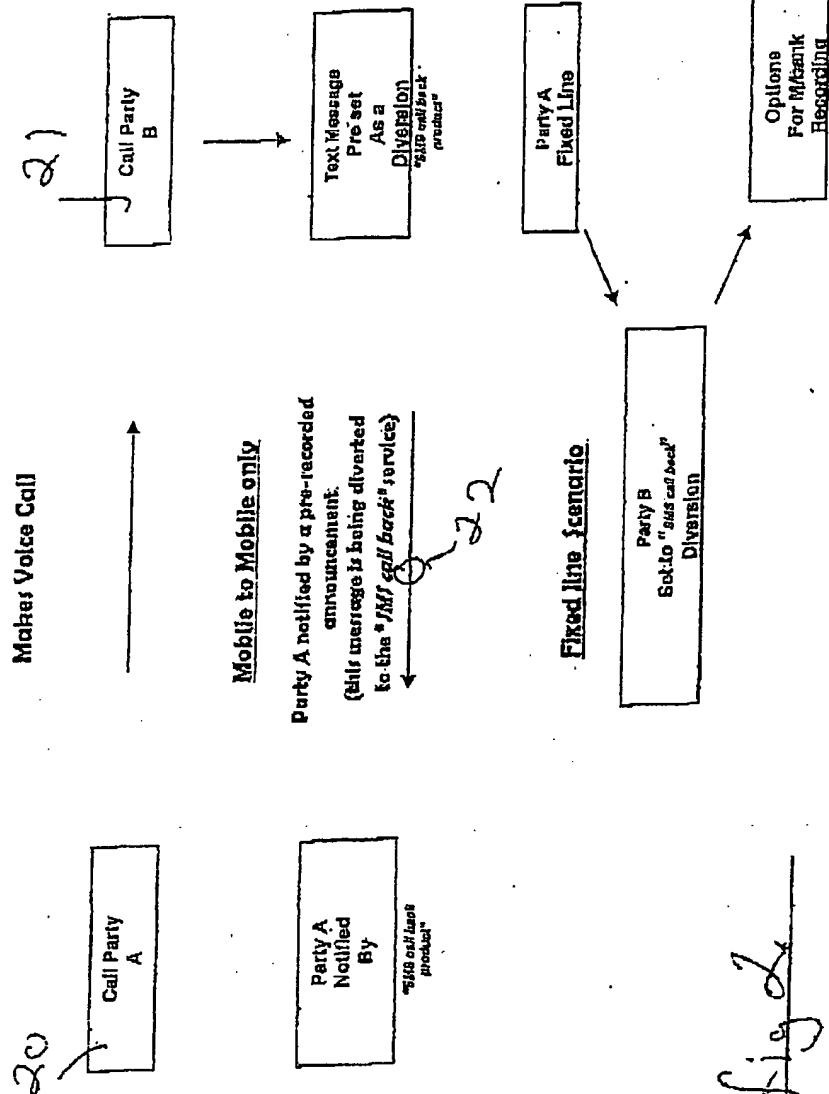
15. The system of Claim 1 wherein said pre-set graphically communicable message is determined, in part, by a third party and in part by said called party.
16. The system of Claim 8 or Claim 9 wherein said third party monetises said system by provision of content in said graphically communicable message which promotes said third party.
17. The system of Claim 1 wherein said pre-set graphically communicable message is pertinent to the activity of said called party which prevented said called party from answering said incoming call thereby to be informative to said calling party.
18. A method for automated reply to a calling party in the event that a called party is indicated as unavailable to answer and incoming call from said calling party; said method comprising the step of instigating delivery of a pre-set visually communicable message to said calling party.

The basic concept



ACTION

"SMS Call back" Product



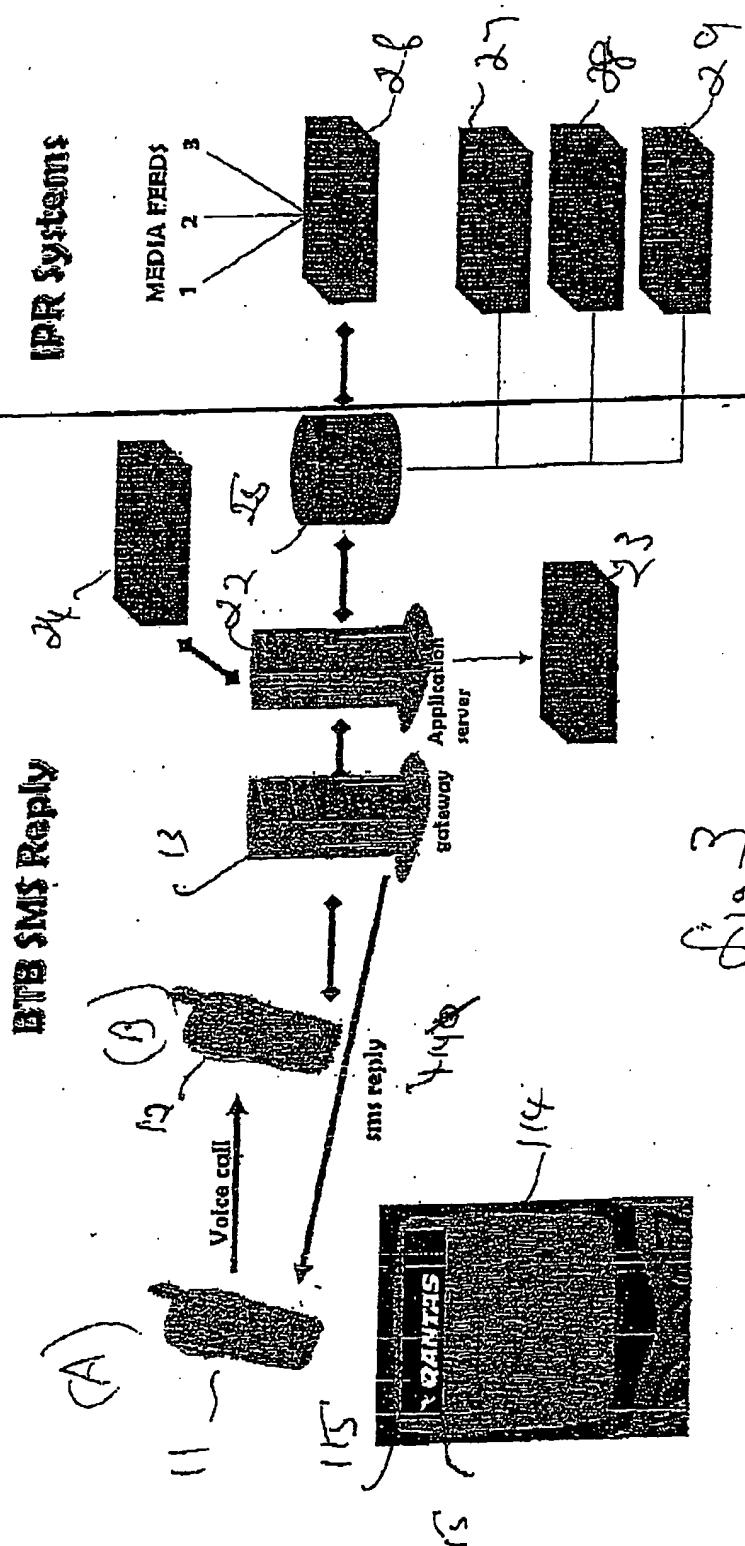
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WO 2004/049684

PCT/AU2003/001562

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SMS concierge



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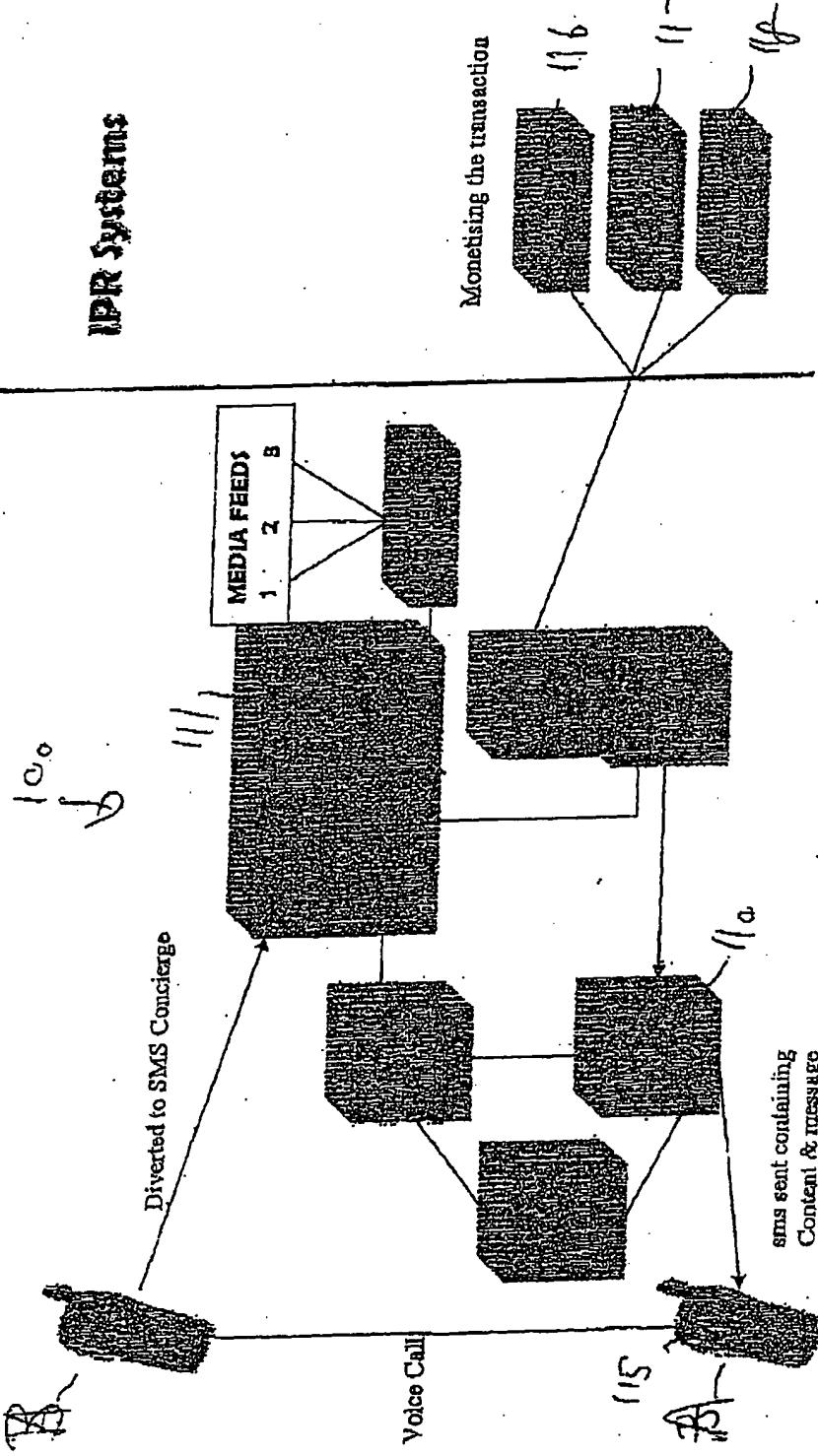
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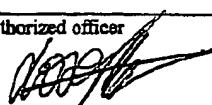
Fig 4

Unified Messaging Platform



INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. 7: H04M 3/42, H04M 3/50, H04M 1/64		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WPAT: phone, call, busy, engaged, unavailable, answer, reply, visual, graphical, image, picture, text, message, sms, automatic and similar terms.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/043680 A1 (SCHEEL) 22 November 2001 Abstract; Paragraph [0006]; Claims 1 - 21; Figures 1 & 2.	1 - 18
X	EP 434239 B1 (AT&T CORP.) 25 September 1996 Column 2, line 13 - column 3, line 36; Claims 1 - 6; Figure 1.	1 - 18
<input type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>		
Date of the actual completion of the international search 3 February 2004	Date of mailing of the international search report 11 FEB 2004	
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	<p>Authorized officer </p> <p>JOSEPH ARROUK</p> <p>Telephone No : (02) 6283 2219</p>	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2003/001562

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report	Patent Family Member
US 2001043680	NONE
EP 0434239	US 5034975
END OF ANNEX	